



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/224,202	12/30/1998	LANCE R. CARLSON	3123-233-1	3994

7590                    04/19/2002

DAVID M. SIGMOND  
MAXTOR CORPORATION  
2190 MILLER DRIVE  
LONGMONT, CO 80501-6744

[REDACTED] EXAMINER

SNIEZEK, ANDREW L

ART UNIT	PAPER NUMBER
2651	32

DATE MAILED: 04/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS  
UNITED STATES PATENT AND TRADEMARK OFFICE  
WASHINGTON, D.C. 20231  
[www.uspto.gov](http://www.uspto.gov)

Mailed

APR 18 2002

Technology Center 2600

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

Paper No. 32

Application Number: 09/224,202  
Filing Date: December 30, 1998  
Appellant(s): CARLSON ET AL.

---

David M. Sigmond  
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed January 23, 2002..

**(1) Real Party in Interest**

A statement identifying the real party in interest is contained in the brief.

**(2) *Related Appeals and Interferences***

The brief does not contain a statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief. Examiner points out that pending U.S. Application Serial No. 09/843,631 filed April 27, 2001 might directly affect or be directly affected by or have a bearing on the Board's decision in this appeal. The Board, however, may exercise its discretion to require an explicit statement as to the existance of any related appeals and interferences.

**(3) *Status of Claims***

The statement of the status of the claims contained in the brief is correct.

**(4) *Status of Amendments After Final***

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) *Summary of Invention***

The summary of invention contained in the brief is correct.

**(6) *Issues***

The appellant's statement of the issues in the brief is correct.

**(7) *Grouping of Claims***

The rejection of claims 47-50, 53-58, 61-66, 87, 88, 91-98, 101-106, 108-113, 115, 118-123, 125 and 126 (first issue) stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

The rejection of claims 87, 88, 93, 97, 98, 103, 110, 111, 120 and 121 (second issue) stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

The rejection of claims 92, 102, 108, 109, 112, 115, 118, 119, 122, 125 and 126 (third issue) stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

**(8) *ClaimsAppealed***

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(9) *Prior Art of Record***

4,777,544	Brown et al.	10-1988
4,146,911	Gyi et al.	3-1979

**(10) *Grounds of Rejection***

The following ground(s) of rejection are applicable to the appealed claims:

Claims 47-50, 53-58, 61-66, 87, 88, 91-98, 101-106, 108-113, 115, 118-123 and 125-126 are rejected under 35 U.S.C. 112 first paragraph. This rejection is set forth in prior Office Action, Paper No. 27.

Claims 87, 88, 93, 97, 98, 103, 110, 111, 120 and 121 are rejected under 35 U.S.C. 102(b) as being anticipated by Brown et al. This rejection is set forth in prior Office Action, Paper No. 27.

Art Unit: 2651

Claims 92, 102, 108, 109, 112, 115, 118, 119, 122, 125 and 126 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown et al. in view of Gyi et al. This rejection is set forth in prior Office Action, Paper No. 27.

**(11) Response to Argument**

**A. Section 112, First Paragraph Rejections**

Appellant points out various locations of the specification to support the position that the flying height determination occurs at a substantially constant flying height **independent** of flying height data obtained at other than the substantially constant flying height, claim 87 or a predetermined flying height, claim 97. Appellant gives an example that the threshold values can be calculated "long before the disk drive is manufactured, and then stored in the RAM while the disk drive is manufactured."

Examiner acknowledges these statements however, does not agree that because of these statements, the invention as claimed is supported by the specification. The claims do not set forth any language that limits that the formation of threshold values during a manufacturing of the disk drive. As set forth the claims set forth a disk drive that determines acceptable flying height **independently** of flying height data obtained from the disk drive at other than the substantially constant flying height or predetermined flying height. Appellants own arguments presented on page 9 of the Appeal Brief refers to page 21 of the specification that discusses ways in which the threshold values are determined. There is nothing in this section that would indicate that these threshold values are determined during disk manufacture as argued. As stated in this section of the specification, the threshold values "represent read signal

resolutions at the maximum head flying heights that will result in an acceptable performance of the disk drive system". These read signals are then stored in a RAM and used to compare with a read signal formed when the head is at a substantially constant flying height. Therefore, contrary to appellant's arguments the specification does not support the claimed limitation "**independently**" since as pointed out, when determining flying height, the read signal formed when the head is at a substantially constant flying height is **directly** dependent upon a read signal resolution value at the maximum flying height that results in an acceptable performance of the drive.

**B. Section 102 Rejection**

Appellant states that in Brown et al. a known reference value (zero clearance) is required to determine an unknown flying height where the claimed invention does not require the use of a known reference value. Examiner disagrees with this statement since as discussed by appellant on page 9 of the Appeal Brief, threshold values are needed and these threshold values are "read signals resolutions at the maximum head flying heights". Therefore contrary to appellant's remarks "other readings" are need in the claimed arrangement as in the teaching of Brown et al.

Appellant also argues that Brown et al. does not teach the first and second signals placed in separate non-overlapping circumferential portions of a track, instead are interleaved with one another on a track. Examiner's position is that the non-overlapping circumferential portions of a track is the same as interleaved with one another on a track. Interleaved, by definition taken from DDICTIONARY OF COMPUTERS, INFORMATION PROCESSING, AND TELECOMMUNICATIONS 2<sup>ND</sup>

Art Unit: 2651

EDITION , by Jerry M. Rosenberg is "to arrange parts of one sequence of things or events so that they alternate with parts of one or more other sequences of the same nature and so that each sequence retains its identity". Therefore the claimed language "non-overlapping" is satisfied by the "interleaved" as taught by Brown et al.

**C. Section 103 Rejections**

No specific arguments have been provided for these claims therefore claims 92, 102, 108, 109, 112, 115, 118, 119, 122, 125 and 126 should stand or fall with claims 87, 88, 93, 97, 98, 103, 110, 111, 120 and 121.

For the above reasons, it is believed that the rejections should be sustained.

Application/Control Number: 09/224,202  
Art Unit: 2651

Page 7

Respectfully submitted,  
*Andrew L. Sniezek*  
Andrew L. Sniezek  
Primary Examiner  
Art Unit 2651

A.L.S.  
April 17, 2002

Conferees

*David Hudspeth*  
David Hudspeth  
Supervisory patent Examiner 2651

*Regina Holder*  
Regina Holder  
Primary patent Examiner

SHERIDAN ROSS PC  
1560 BROADWAY  
SUITE 1200  
DENVER, CO 80202